

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

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1. (Currently Amended) A method of estimating ~~[[the]]~~ a pitch of a speech signal ~~[[ (2) ]]~~, said method comprising ~~the steps of:~~

- ~~[[•]]~~ dividing the speech signal into segments~~[[,]]~~;
- ~~[[•]]~~ calculating for each segment a conformity function for the signal~~[[, and]]~~;
- ~~[[•]]~~ detecting peaks in the conformity function~~[[,]]~~;

~~characterized in that the method further comprises the steps of:~~

- ~~[[•]]~~ estimating an average distance between said peaks~~[[,]]~~; and
- ~~[[•]]~~ using the estimate of said average distance as an estimate of the pitch.

2. (Currently Amended) ~~[[A]]~~ The method according to claim 1, ~~characterized in that it further comprises the steps of~~ further comprising:

- ~~[[•]]~~ sampling the speech signal to obtain a series of samples~~[[,]]~~; and
- ~~[[•]]~~ performing said division into segments such that each segment has a fixed number of consecutive samples.

3. (Currently Amended) ~~[[A]]~~ The method according to claim 1; ~~or 2, characterized in that it further comprises the steps of~~ comprising:

- ~~[[•]]~~ estimating a set of filter parameters using linear predictive analysis (LPA)~~[[,]]~~;
- ~~[[•]]~~ providing a modified signal ~~[[ (26) ]]~~ by filtering the speech signal through a filter based on said estimated set of filter parameters~~[[,]]~~; and
- ~~[[•]]~~ calculating said conformity function of the modified signal.

4. (Currently Amended) ~~[[A]]~~ The method according to ~~any one of claims 1 to 3~~ claim 1, characterized in that wherein said conformity function is calculated as an autocorrelation function.

5. (Currently Amended) ~~[[A]]~~ The method according to ~~any one of claims 1 to 4~~, characterized in that it further comprises the steps of to claim 1 further comprising:

[[•]] calculating for each peak in the conformity function the difference between the position of the peak and the estimate of said average distance[[,]]; and

[[•]] providing an improved estimate of the pitch by selecting as the improved estimate the position of the peak having the smallest value of said difference.

6. (Currently Amended) ~~[[A]]~~ The method according to claim 5, ~~characterized in that it further comprises the step of~~ further comprising:

[[•]] selecting, if the peak having the smallest value of said difference is represented by a number of samples, the sample having the maximum amplitude of said conformity function as said improved estimate of the pitch.

7. (Currently Amended) ~~Use of the~~ The method according to ~~any one of claims 1 to 6 in a mobile telephone~~ claim 1, wherein said method is used in a mobile telephone.

8. (Currently Amended) A device adapted to estimate ~~[[the]]~~ a pitch of a speech signal, said device (2), and comprising:

[[•]] means ~~[[ (3) ]]~~ for dividing the speech signal into segments[[,]];

[[•]] means ~~[[ (5) ]]~~ for calculating for each segment a conformity function for the signal[[, and]];

[[•]] means ~~[[ (6) ]]~~ for detecting peaks in the conformity function[[,]];

~~characterized in that the device is further adapted to:~~

[[•]] means for estimating ~~estimate~~ an average distance between said peaks[[,]]; and

[[•]] means for using [[use]] the estimate of said average distance as an estimate of the pitch.

9. (Currently Amended) [[A]] The device according to claim 8, ~~characterized in that it further comprises~~ further comprising:

[[•]] means [[(3)]] for sampling the speech signal to obtain a series of samples[[,]]; and

[[•]] means for performing said division into segments such that each segment has a fixed number of consecutive samples.

10. (Currently Amended) [[A]] The device according to claim 8 ~~or 9, characterized in that it further comprises~~ further comprising:

[[•]] means [[(4; 24)]] for estimating a set of filter parameters using linear predictive analysis (LPA)[[,]]; and

[[•]] means [[(4; 25)]] for providing a modified signal by filtering the speech signal through a filter based on said estimated set of filter parameters[[,]]; and

[[•]] means [[(5)]] for calculating said conformity function of the modified signal.

11. (Currently Amended) [[A]] The device according to claim 8, wherein any one of ~~claims 8 to 10, characterized in that~~ said conformity function is an autocorrelation function.

12. (Currently Amended) ~~[[A]] The device according to claim 8 further comprising any one of claims 8 to 11, characterized in that it further comprises:~~

- ~~[[.]] means for calculating for each peak in the conformity function the difference between the position of the peak and the estimate of said average distance[[.]]; and~~  
~~[[•]] means for providing an improved estimate of the pitch by selecting as the improved estimate the position of the peak having the smallest value of said difference.~~

13. (Currently Amended) ~~[[A]] The device according to claim 12, characterized in that it is wherein the device is~~ further adapted to select, if the peak having the smallest value of said difference is represented by a number of samples, the sample having the maximum amplitude of said conformity function as said improved estimate of the pitch.

14. (Currently Amended) ~~[[A]] The device according to claim 8, wherein any one of claims 8 to 13, characterized in that~~ the device is a mobile telephone.

15. (Currently Amended) ~~[[A]] The device according to claim 8, wherein any one of claims 8 to 13, characterized in that~~ the device is an integrated circuit.